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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/933,790	08/21/2001	Timothy J. Mousley	GB 000139	6733

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EXAMINER

AMINZAY, SHAIMA Q

ART UNIT PAPER NUMBER

2684

DATE MAILED: 06/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 09/933,790	Applicant(s) MOULSLEY ET AL.	
	Examiner Shaima Q. Aminzay	Art Unit 2684	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 14 April 2005.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>8/21/01</u> . | 6) <input type="checkbox"/> Other: _____  |

## ***DETAILED ACTION***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on March 14, 2005 has been entered.

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action

(a) Patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made

2. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chuah (Chuah et al. U. S. Patent 6,587,672) in view of Muller (Muller U. S. Patent 6,490,461).

Regarding claim 1, Chuah discloses transferring information in units over a

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wireless digital communications link (see for example, Figure 1, 8) between a transmitting station (see for example, Figure 1, Node-b (6)) and a receiving station (see for example, Figure 1, mobile (2)), and transmitting first information units at a first power level (see for example, column 8, lines 20-24, the first information is being transmitted), and transmitting second information units associated with the first information units (see for example, column 8, lines 39-44, the second information associated with the first information is transmitted), for which first information units did not indicate correct reception occurred (see for example, column 8, lines 20-39), at a second power level which is controlled on the basis of the disparity between target and actual quality of reception parameters for said second information units (see for example, column 8, lines 35-46, based on the two threshold (DThresh1 and PThresh1) the first and second power level reception quality is controlled), wherein the target quality of reception parameter for said second information units is different to the target quality of reception parameter for said first information units (see for example, column 8, lines 35-52, the power level is different, for example increasing to 1dB, second information), and the second information units allowing the content of the first information units to be established (see for example, column 8, lines 45-50, the increase of 1dB allowing the establishment of the first information), and wherein the second power level may be less than or greater than the first power level (see for example, Figure 6A, column 9, lines 3-7, on the two threshold (DThresh1 and PThresh1) the second power level (Pthresh1) is less than the first

power level (Dthresh1)).

However, Chuah does not specifically teach monitoring means.

Muller discloses monitoring means for monitoring if correct reception of the transmitted units occurred at the receiver (see for example, column 2, lines 55-56, and lines 23-36, the controller monitors the transmission).

It would have been obvious to one of ordinary skill in the art at the time invention was made to combine Muller's wireless communication system power monitoring method and apparatus (Muller, column 1, lines 6-8) with Chuah's power detection in a receiver of a wireless system such as Universal Mobile Telecommunications System (Chuah, column 1, lines 19-20) to provide the wireless system such as UMTS with multi-detection of receiving and transmitting communications signals (Chuah, column 1, lines 15-20, and lines 49-54), and to provide a system that "each mobile station is continually monitored to ensure that its power levels are high enough to provide good transmission quality yet no higher than necessary to provide that transmission quality and no higher than will create unreasonable interference with other mobile station communications" (Muller, column 2, lines 50-55).

Regarding claim 12, Chuah discloses a digital wireless communications system (see for example, Figure 1) comprising at least one transmitter (see for example, Figure 1, Node-B (6)) having means for transmitting (see for example, column 6, lines 11-19; processor description, and column 6, lines 1-5) first

information units at a first power level (see for example, column 8, lines 12-15, and Figure 8C, Frame 0, and Frame 1), and at least one receiver (see for example, Figure 1, mobile (2)) having means for receiving the transmitted information units (see for example, column 6, lines 11-19; processor description, and column 6, lines 1-5); control means for controlling the transmitter output power (see for example, Figure 1, Radio Network Controller (RNC), column 2, lines 2-5), and the transmitting means transmits second information units associated with the first information units (see for example, column 8, lines 35-43, and Figure 8C, Frame 1), for which first information units does not indicate correct reception has occurred (see for example, column 8, lines 35-43), and the second information units being transmitted at a second power level which is controlled on the basis of the disparity between target and actual quality of reception parameters for said second information units (see for example, column 8, lines 35-50), and the target quality of reception parameter for said second information units is different to the target quality of reception parameter for said first information units (see for example, column 8, lines 35-43, and Figure 8C, Frame 1), and the second information units allowing the content of the first information units to be established (see for example, column 8, lines 35-52), and wherein the second power level may be less than or greater than the first power level (see for example, Figure 6A, column 9, lines 3-7, on the two threshold (DThresh1 and PThresh1) the second power level (Pthresh1) is less than the first power level (Dthresh1)).

However, Chuah does not specifically teach monitoring means.

Muller discloses monitoring means for monitoring if correct reception of the transmitted units occurred at the receiver (see for example, column 2, lines 55-56, and lines 23-36, the controller monitors the transmission).

It would have been obvious to one of ordinary skill in the art at the time invention was made to combine Muller's wireless communication system power monitoring method and apparatus (Muller, column 1, lines 6-8) with Chuah's power detection in a receiver of a wireless system such as Universal Mobile Telecommunications System (Chuah, column 1, lines 19-20) to provide the wireless system such as UMTS with multi-detection of receiving and transmitting communications signals (Chuah, column 1, lines 15-20, and lines 49-54), and to provide a system that "each mobile station is continually monitored to ensure that its power levels are high enough to provide good transmission quality yet no higher than necessary to provide that transmission quality and no higher than will create unreasonable interference with other mobile station communications" (Muller, column 2, lines 50-55).

Regarding claim 16, Chuah discloses a transmitter station for digital wireless transmission of traffic information to a receiver (see for example, Figure 1, mobile (2), Node-b (6)), said transmitter station having: a transmitter for transmitting first information units at a first power level (see for example, column 8, lines 20-24, the first information is being transmitted) control means for controlling the

transmitter output power (see for example, Figure 1, Radio Network Controller (RNC), column 2, lines 2-5); and monitoring means for monitoring if correct reception of the transmitted units occurred at the receiver wherein the transmitter transmits second information units associated with the first information units for which first information units (see for example, column 8, lines 39-44), and does not indicate correct reception has occurred at a second power level which is controlled on the basis of the disparity between target and actual quality of reception parameters for said second information units (see for example, column 8, lines 35-50), wherein the target quality of reception parameter for said second information units is different to the target quality of reception parameter for said first information units (see for example, column 8, lines 35-43, and Figure 8C, Frame 1), and the second information units allowing the content of the first information units to be established (see for example, column 8, lines 35-52), and wherein the second power level may be less than or greater than the first power level (see for example, Figure 6A, column 9, lines 3-7, on the two threshold (DThresh1 and PThresh1) the second power level (Pthresh1) is less than the first power level (Dthresh1)).

However, Chuah does not specifically teach monitoring means.

Muller discloses monitoring means for monitoring if correct reception of the transmitted units occurred at the receiver (see for example, column 2, lines 55-56, and lines 23-36, the controller monitors the transmission).

It would have been obvious to one of ordinary skill in the art at the time



invention was made to combine Muller's wireless communication system power monitoring method and apparatus (Muller, column 1, lines 6-8) with Chuah's power detection in a receiver of a wireless system such as Universal Mobile Telecommunications System (Chuah, column 1, lines 19-20) to provide the wireless system such as UMTS with multi-detection of receiving and transmitting communications signals (Chuah, column 1, lines 15-20, and lines 49-54), and to provide a system that "each mobile station is continually monitored to ensure that its power levels are high enough to provide good transmission quality yet no higher than necessary to provide that transmission quality and no higher than will create unreasonable interference with other mobile station communications" (Muller, column 2, lines 50-55).

Regarding claim 20, Chuah discloses a receiver for use in a digital wireless communications system comprising at least one transmitter having means for transmitting first information units at a first power level (see for example, Figure 1, mobile (2) and Node-b (6), column 8, lines 20-24, the first information is being transmitted), and the receiver having means for receiving the transmitted information units (see for example, column 6, lines 11-19; processor description, and column 6, lines 1-5), and control means for controlling the transmitter output power (see for example, Figure 1, Radio Network Controller (RNC), column 2, lines 2-5), wherein the transmitting means transmits second information units associated with the first information units for which first information units and

does not indicate correct reception has occurred (see for example, column 8, lines 39-44), and the second information units being transmitted at a second power level which is controlled on the basis of the disparity between target and actual quality of reception parameters for said second information units (see for example, column 8, lines 35-50), and wherein the target quality of reception parameter for said second information units is different to the target quality of reception parameter for said first information units (see for example, column 8, lines 35-43, and Figure 8C, Frame 1), and the second information units allowing the content of the first information units to be established (see for example, column 8, lines 35-52), and wherein the second power level may be less than or greater than the first power level (see for example, Figure 6A, column 9, lines 3-7, on the two threshold (DThresh1 and PThresh1) the second power level (Pthresh1) is less than the first power level (Dthresh1)).

However, Chuah does not teach monitoring means.

Muller discloses monitoring means for monitoring if correct reception of the transmitted units occurred at the receiver (see for example, column 2, lines 55-56, and lines 23-36, the controller monitors the transmission).

It would have been obvious to one of ordinary skill in the art at the time invention was made to combine Muller's wireless communication system power monitoring method and apparatus (Muller, column 1, lines 6-8) with Chuah's power detection in a receiver of a wireless system such as Universal Mobile Telecommunications System (Chuah, column 1, lines 19-20) to provide the

wireless system such as UMTS with multi-detection of receiving and transmitting communications signals (Chuah, column 1, lines 15-20, and lines 49-54), and to provide a system that “each mobile station is continually monitored to ensure that its power levels are high enough to provide good transmission quality yet no higher than necessary to provide that transmission quality and no higher than will create unreasonable interference with other mobile station communications” (Muller, column 2, lines 50-55).

Regarding claims 2, 13, and 17, Chuah in view of Muller teach claims 1, 12, 16, and Chuah further teaches the target quality of reception parameter for the second information units is greater than the target quality of reception parameter for the first information units (see for example, column 4, lines 46-63).

Regarding claim 3, Chuah in view of Muller teach claims 1, and Muller further teaches quality of reception parameter is chosen on the basis of a target bit error rate or block error rate in the information received (see for example, column 5, lines 41-50).

Regarding claim 4, Chuah in view of Muller teach claim 1, and Muller further teaches the quality of reception parameter is the signal to interference (see for example, column 2, lines 60-65, and column 4, lines 59-60).

Regarding claim 5, Chuah in view of Muller teach claim 1, and Muller further teaches the actual and target quality of reception parameters of received information unit transmissions and decreasing the information unit transmission power level if the quality of reception parameter for received information unit transmissions is greater than the target quality of reception parameter (see for example, column 4, lines 46-54), otherwise increasing the information unit transmission power level if the quality of reception parameter for received information unit transmissions is less than the target quality of reception parameter (see for example, column 4, lines 54-63, and 46-49).

Regarding claim 6, Chuah in view of Muller teach claim 1, and Chuah further teaches the communications link is established by equipment operating in accordance with a communications protocol based on the Universal Mobile Telecommunication System (see for example, column 2, lines 25-26, and lines 53-61).

Regarding claim 7, Chuah in view of Muller teach claim 6, and Chuah further teaches the communications link is established on at least one physical channel (see for example, column 2, lines 25-28).

Regarding claim 8, Chuah in view of Muller teach claim 7, and Muller further teaches the transmit power control (TPC) field carried on a control channel set up

in the communications link (see for example, column 1, lines 28-30, and column 2, lines 62-65).

Regarding claim 9, Chuah in view of Muller teach claim 1, and Chuah further teaches the probability of failed first information units transmission and consequent second information units transmission (see for example, column 10, lines 55-62).

Regarding claim 10, 14, and 18, Chuah in view of Muller teach claims 1, 16, and Chuah further teaches maintain a minimum average power consumption (see for example, column 10, lines 19-30).

Regarding claims 11, 15, and 19, Chuah in view of Muller teach claims 1, 12, 16, and Chuah further teaches the second information unit transmissions are performed using an initial transmission power boost without reference to the quality of reception parameter (see for example, column 4, lines 39-42).

### ***Response to Arguments***

3. Applicant's arguments with respect to claim 1-20 filed March 14, 2005 have been fully considered but they are not persuasive.

The applicant's argued features in the claims, i.e., providing a digital wireless communications system transferring information in units over a wireless digital communications link between a transmitting station and a receiving station comprising transmitter(s) for transmitting information units at a first power level, and receiver(s) for receiving the transmitted information units, and controller for controlling the transmitter output power and monitoring means for monitoring the reception of the transmitted units at the receiver for receiving correct information, and if indicate correct reception does not occurred, the transmitter transmits second information units associated with the first information units, the second information units being transmitted at a second power level which is controlled between target and actual quality of reception parameters for the second information units, and the target quality of reception parameter for the second information units is different to the target quality of reception parameter for the first information units, the second information units allowing the content of the first information units to be established, and "the second power level may be less than or greater than the first power level" read upon Chuah (Chuah et al.) in view of Muller as follows.

Chuah discloses a wireless communication system related to Universal Mobile Telecommunication System (UMTS), the radio access network based on CDMA having transmitter, receiver, and controlling means to provide detection of receiving and transmitting power level between the base(s) and mobile station(s),

disclosing the limitations "digital wireless communications system comprising at least one transmitter having means for transmitting first information units at a first power level; at least one receiver having means for receiving the transmitted information units; control means for controlling the transmitter output power".

Chuah uses data packets for transmission information and detecting transmission power levels, actual and target values, determining correct reception, if indication of not receiving correct reception, the transmission adjusted accordingly, therefore, Chuah discloses the limitation of "monitoring if correct reception of the transmitted units occurred at the receiver, wherein the transmitting means transmits second information units associated with the first information units for which first information units the monitoring means does not indicate correct reception has occurred, the second information units being transmitted at a second power level which is controlled on the basis of the disparity between target and actual quality of reception parameters for said second information units, wherein the target quality of reception parameter for said second information units is different to the target quality of reception parameter for said first information units, the second information units allowing the content of the first information units to be established" and further, Chuah disclose "the second power level may be less than or greater than the first power level" (see for example, Figure 6A, column 9, lines 3-7, on the two threshold (DThresh1 and PThresh1) the second power level (Pthresh1) is less than the first power level (Dthresh1)). Chuah does not specifically discloses monitoring mean,

however, Chuah discloses detecting and monitoring correct reception, implying monitoring means. The implication led to search for similar reference, such as Muller. Muller discloses a wireless communication system and transmission power control affecting mobile and base station communications, and having monitoring means for monitoring correct reception. Chuah and Muller are both analogous to the applicants' teaching, that's why they do obviate.

Therefore, Examiner believes the claims are broad enough to combining Muller's wireless communication system power monitoring means and method with Chuah's wireless communications system transmission power detection to provide a wireless communication system with multi-detection and continuously monitoring power levels for high quality transmission.



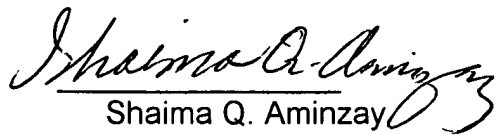
### **Conclusion**

The prior art made of record considered pertinent to applicant's disclosure, see PTO-892 form.

### **Inquiry**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shaima Q. Aminzay whose telephone number is 703-305-8723. The examiner can normally be reached on 7:00 AM -5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on 571-272-7882. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Shaima Q. Aminzay  
(Examiner)

June 20, 2005

  
NAY MAUNG  
SUPERVISORY PATENT EXAMINER

Nay Maung  
(SPE)  
Art Unit 2684